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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,573	12/12/2001	Herve Saint	Q 67618	9696

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Sughrue Mion Zinn Macpeak & Seas  
2100 Pennsylvania Avenue N W Suite 800  
Washington, DC 20037-3213

EXAMINER

SHARMA, SUJATHA R

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 08/02/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/009,573

Applicant(s)

SAINCT, HERVE

Examiner

Sujatha Sharma

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3</u> . | 6) <input type="checkbox"/> Other: _____  |

***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d) which papers have been placed of record in the file.

***Claim Objections***

1. Claim 4 is objected to because of the following informalities:  
  
In line 1 "any claim 1" should be replaced by --claim1--.  
  
Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Baum [WO 97/15992].

Regarding claim 1, Baum discloses an air-borne platform that carries a communication payload. Baum further discloses a method where the aircraft includes propulsion means (see element 15 in fig. 2) enabling said aircraft to maintain itself, to move itself and to orient itself solely at high altitude (see page 6, line 23 – page 7, line 3, page 11, lines 21-28)

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Regarding claim 5, Baum further discloses a method of getting an aircraft onto station, the method being characterized by the following steps:

- on the ground, said aircraft (50 in Fig. 8) is secured to an independent transporter (51 in Fig.8)
- said transporter (51 in Fig. 8) takes said aircraft to a high altitude (position D in Fig. 8) at which it is to operate using solely propulsion means of said transporter (see page 13, lines 8 – 27)
- said transporter releases said aircraft at the altitude and atleast approximately at the intended location of its operating station (see fig. 8 and page 13, lines 8-27)
- if necessary, said aircraft uses its own propulsion means (15 in Fig. 2) to put itself on station and take up its proper orientation (see page 6, line 23 – page 7, line 3, page 11, lines 21-28)

Regarding claim 6, Baum further discloses a method where the transporter further comprises of atleast one balloon (51,57 in Fig. 8) suitable for rising to high altitude

Regarding claim 7, Baum further discloses a method where the radio relay station of the telecommunication network is replaced by an aircraft (9 in fig. 2) of the airplane (see page 1, lines 1-13, page 2, lines 27-32) and provided with transceiver means for radio waves (see page 3, lines 1-15). Further Baum discloses a method wherein the said aircraft is being taken to an altitude and a position such that the said transceiver means lies in the same direction relative to

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atleast one user of said telecommunication network (see page 3, lines 22-29, page 4, line 5 – page 5, line 20).

Regarding claim 8, Baum further discloses a method where the aircraft (9 in fig. 2) of the airplane at high altitude carries atleast one radio relay (see page 1, lines 1-13, page 2, lines 27-32).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baum [WO 97/15992] in view of Wong [WO 97/33790].

Regarding claim 2, Baum discloses all the limitations. However he fails to disclose a method wherein the propulsion means comprising atleast one plasma thruster which operates using plasma created from the surrounding air at said high altitude.

Wong, in the same field of endeavor, teaches a method of using a new propulsion system to overcome the inefficiencies of the conventional propellers. Further Wong teaches a method where the engine includes an electrode and the emitted electrons are accelerated by the surrounding electric field forming plasma of electrons, which is then used to propel the aircraft. See page 16, line 7 – page 17, line 15.

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Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Wong to Baum in order to use a more efficient method of propulsion.

Regarding claim 3, Wong further teaches the use of solar generator in the aircraft which is cooled by convection (dissipating or radiating heat to the surrounding area. See page 22, lines 17-27 where it indicates that heat is discharged to the surrounding gas)

Regarding claim 4, Wong further teaches the use of atleast one storage battery in the aircraft. See page 15, lines 17-26.

### *Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Passman [US 6,427,944]	Systems and methods for using airborne communication nodes
Lanzerotti [US 6,324,398]	Wireless telecommunications system having air-borne base station
Campbell [US 6,167,263]	Aerial communication network including a plurality of aerial platforms
McNulty [GB 2082995]	Airborne relay station
Martin [US 6,061,562]	Wireless communication using an airborne switching node
Gilhousen [US 5,559,865]	Airborne radiotelephone communication system

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sujatha Sharma whose telephone number is 703-305-5298. The examiner can normally be reached on Mon-Fri 7.30am - 4.00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sujatha Sharma  
July 13, 2004

  
NAY MAUNG  
SUPERVISORY PATENT EXAMINER